UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

January 6, 2009

Mr. James Sullivan
U.S. Department of the Navy
BRAC Program Management Office – West
1455 Frazee Rd., Suite 900
San Diego, CA 92108-4310

Subject: Remedial Investigation Report for IR Site 33, Waterline Replacement Area, Naval Station Treasure Island, San Francisco

Dear Mr. Sullivan:

I have reviewed the subject document and comments provided to the Navy by the Department of Toxic Substances Control and the Regional Water Quality Control Board. EPA has the following additional comments on the document:

- **Section 4.1.1.6. Exploratory Trenching and Subsurface Investigation, Page 4-4**: According to the text, soil from trench locations WLRTP018 through WLRTP034 was collected and analyzed for metals and dioxins. Review of Figure 4-3 and Figure 4-4 indicates that concentrations of arsenic and lead were higher in some of the step-out samples than in the original trench locations (WLRTP002 through WLRTP012), e.g., sample WLRTP019 has the highest measured concentrations of arsenic and lead. Although the concentrations may be statistically consistent with screening criteria, it appears that the hot spot is not defined in terms of the established screening criteria. Please provide more information in the text about arsenic and lead characterization in this area and the focus of the step-out investigation.

- **General, Human Health Risk Assessment**: The risk assessment for Site 33 assumes that these construction/utility workers are exposed to contamination for a very small fraction of their entire careers. Exposure frequencies and duration used in the risk assessment are in some cases as low as 10 to 90 days/year for only one year, representing a total exposure to contamination of 10 to 90 days during an entire career. In contrast, typical RME (reasonable maximum exposure) assumptions for a worker's career equate to 6,250 days (250 days per year for 25 years). If EPA correctly understands the risk screening procedure applied at this site, a worker exposed for 10 days during one year can accumulate one-tenth of the Superfund upper bound acceptable lifetime cancer risk in 0.2% of his/her working lifetime (10 days/6250 days).

  EPA recommends that the Navy (1) perform the risk assessment using more conservative assumptions about worker exposures to contamination over an entire career (e.g., by assuming exposure frequencies and durations equivalent to 25% to 50% of an entire career) while recognizing that not all of that exposure will occur at

the Waterline Replacement Area at IR Site 33 on Treasure Island or (2) use a more stringent, health-protective risk screening value, i.e., the risk point of departure specified in the National Contingency Plan for decision-making involving risk screening and management for construction/utility workers at this site, a 10^{-6} (1 in one-million) cumulative excess lifetime cancer risk.

Minor Comment:

- **Table 4-1**. It is unclear how the table is organized, making it difficult to locate a specific sample number. Was sample 99WLRTP022 collected?

Please contact me with any questions related to this review at (415) 972-3112.

Sincerely,

Christine Katin
Remedial Project Manager